Texas Highways

JANUARY, 1962

Texas Highways

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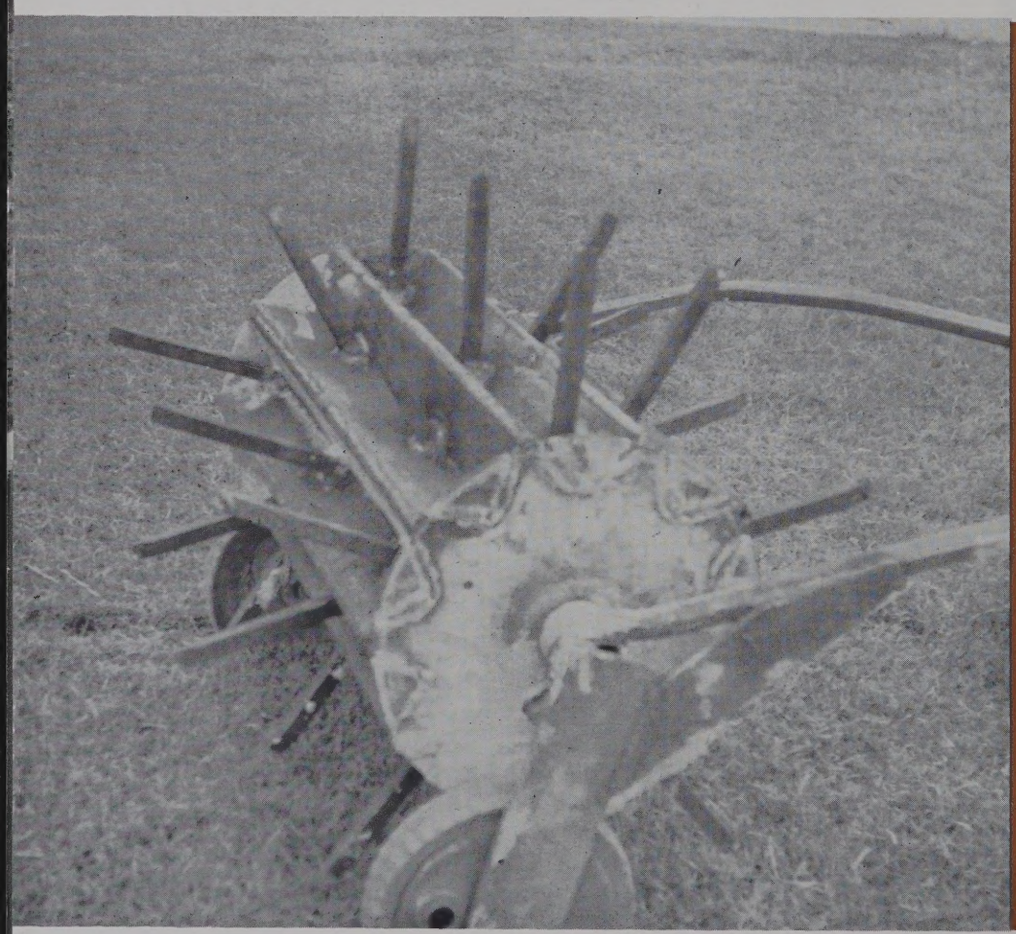
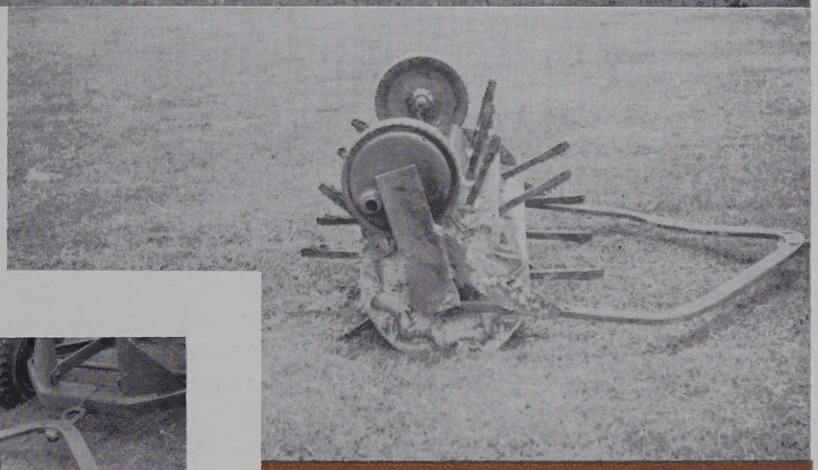
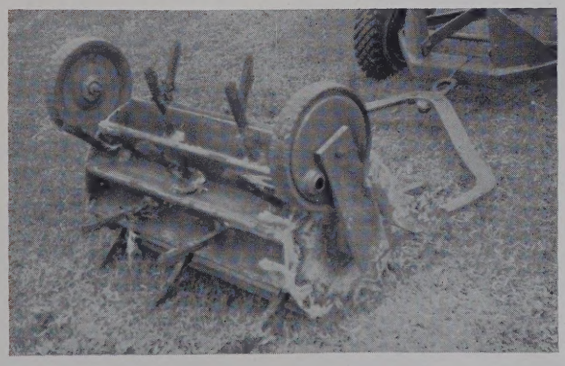
LAWN AERATOR



Pictured is a "lawn aerator," or "sodbuster," developed in the Post section of District 5 for use on their lawn there at section headquarters. It is made of salvage angle iron, railroad spikes, concrete, and a few items from the scrap pile. It seems to do an excellent job of loosening the tight soil so that water will soak into the grass roots.





permanent bench marks

George S. Meyer, Supervising Resident Engineer
District 15

On expressway construction projects in the San Antonio urban area, maintaining elevations of bench marks during the life of a project—lasting from twelve months to two years or more—proved difficult. Previously established bench marks were such things as spikes in trees or poles, squares cut in tops of curbs, inlets, manholes, or culvert headwalls, United States Coastal and Geodetic Survey monuments, and iron bars driven into the ground. After several months, these marks would change in elevation because of the unstable soil in the San Antonio area. Changes were from 0.05 feet to as much as 0.30 feet.

During 1958 and 1959, experiments were made by the various Resident Engineers using drilled shafts to establish random permanent bench marks. These bench marks were found usually to be stable since they were drilled to solid foundation. It was difficult, however, for the Resident Engineers on construction to build permanent-type bench marks because of lack of equipment and funds. Also, bench marks were needed immediately upon beginning construction. For this reason, permanent-type bench marks were decided on, to be constructed during the preliminary phases of surveying. The permanent bench marks are located by the District 15 Survey Section, drilled by the District 15 Laboratory, and constructed by state maintenance forces. They can only be located and built after the construction plans are completed and after right of way has been purchased. The bench marks therefore can only be built and elevations established in the month preceding the receipt of bids for construction.

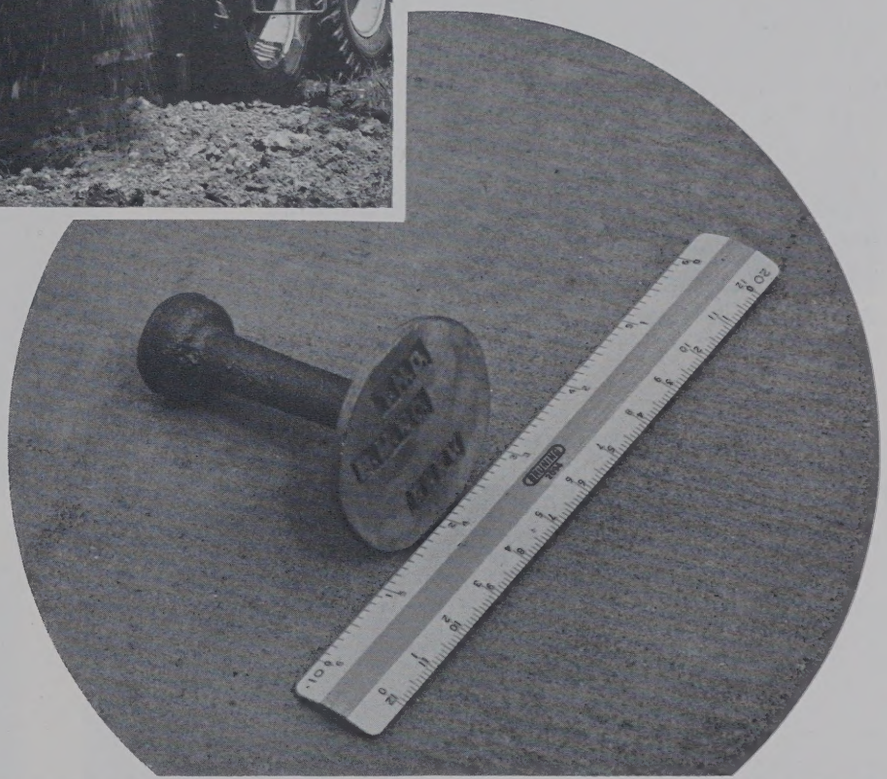
Permanent bench marks are constructed to the details shown on the accompanying sketch. Several sections have been constructed alternating three underreamed shafts with three straight shafts. To date, no difference has been noted in their behavior. Two bench marks are usually located in the immediate vicinity of large structures or interchanges, and others at 1,000-foot intervals along the construction project.

In establishing elevations on permanent bench marks, a five-man survey party is used. The engineer's level is shaded at all times by an equipment umbrella. The Party Chief levels the instrument and tells the Instrumentman when to take his reading. The rear Rodman sets the micrometer target while reading is being made on the head Rodman. Elevations of targets are checked and readings recorded to the one-thousandth of a foot. The level rods are kept plumb with rod levels.

In April 1960 sixteen permanent bench marks were constructed on a three-mile section of Interstate Highway 35, from Rittiman Road to Fratt, Texas. In August 1961 levels were rerun over this section of highway and the maximum deviation was found to be 0.018 feet. Since this difference is beyond the limits of accuracy of the equipment used, it might be stated that these permanent bench marks have not moved since they were constructed. A total of 95 permanent bench marks have been constructed in the San Antonio urban area so far.

Materials and equipment used in the construction of the permanent bench mark are shown here.

A shaft is drilled to 20-foot depth, or to solid material.



The bronze disk is placed in top of the concrete shaft. Bench-mark numbers and elevations are stenciled in the face of the disk.

Concrete is placed in the bottom three feet of the shaft.

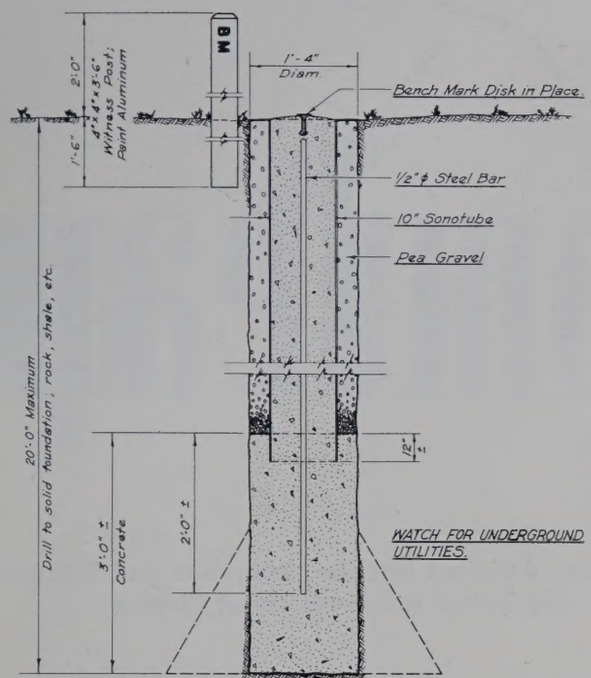
Sonotubing is lowered into the shaft.

Next, pea gravel is placed around sonotubing.

The iron bar, held at left, is tied to the reinforcing steel to keep it in position while concrete is poured in the sonotubing.

A five-man survey party establishes elevations.

Completed permanent bench mark, with witness post.

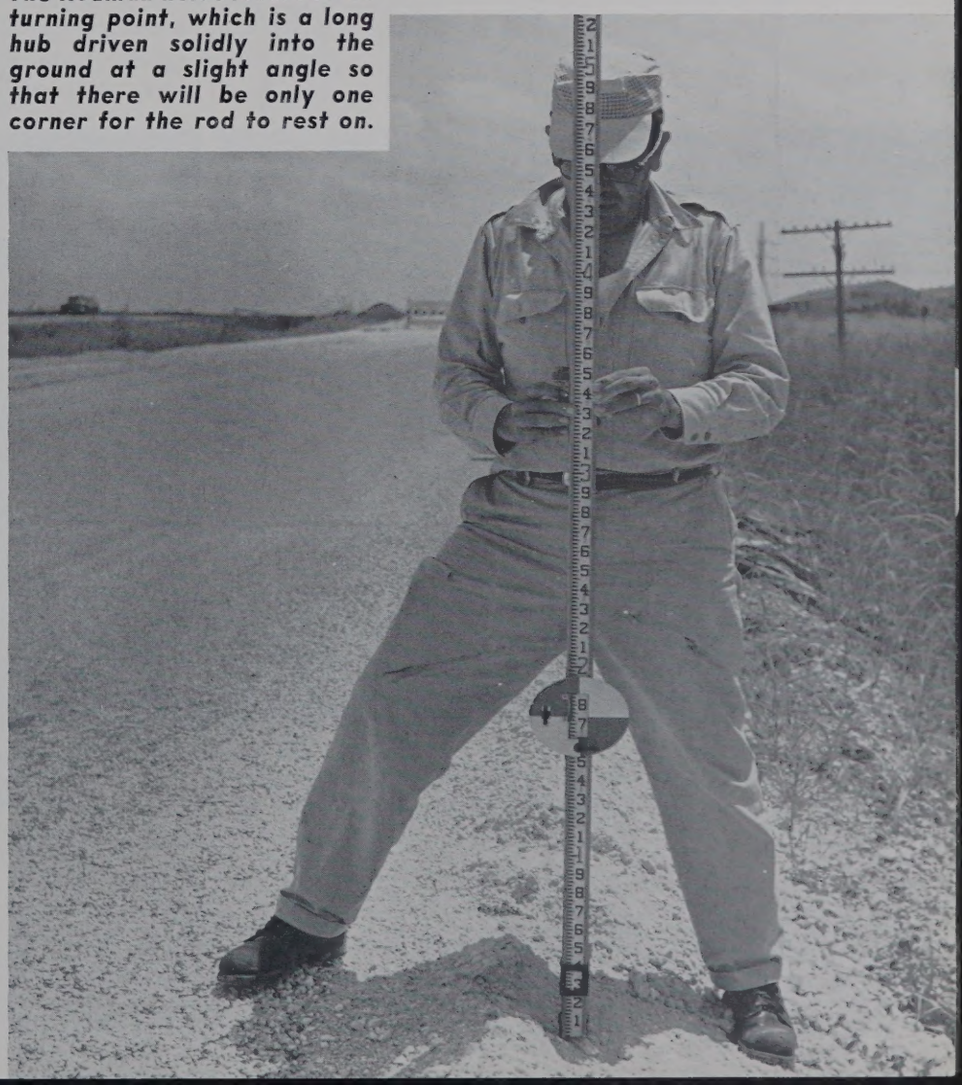


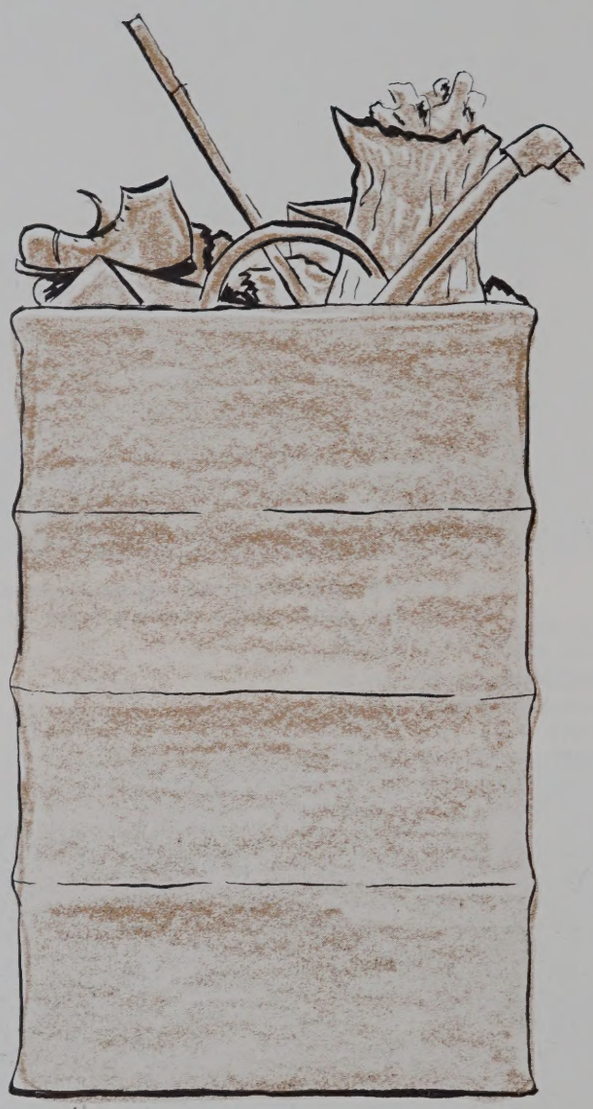
DETAIL OF PERMANENT CONSTRUCTION BENCH MARKS

In the leveling operation, the engineer's level is kept in the shade while moving from one setup to another.

Level rod is held on completed permanent bench mark. Note that the contractor has provided additional protection by constructing a wooden railing around the point.

The Rodman holds level rod on turning point, which is a long hub driven solidly into the ground at a slight angle so that there will be only one corner for the rod to rest on.





clean -

John L. Heim, Assistant Director, Equipment and Procurement
Equipment and Procurement Division

The occasion of moving into a new District Warehouse is usually a gala affair; however, back at the old warehouse there is the problem of what to do with leftovers and obsolete items that have accumulated over a period of time.

The Abilene District came face to face with this situation during the latter part of 1960, just prior to moving into its new District Warehouse. Obsolete parts accumulated during the shortage period of World War II and the Korean crisis were uncovered. Slow-moving supplies that were a necessity just a few years ago were no longer in demand. Bins were set up and indexed in the new warehouse and the inventory at the old warehouse was catalogued to fall into its proper location in the new warehouse. The leftover and obsolete items continued to accumulate.

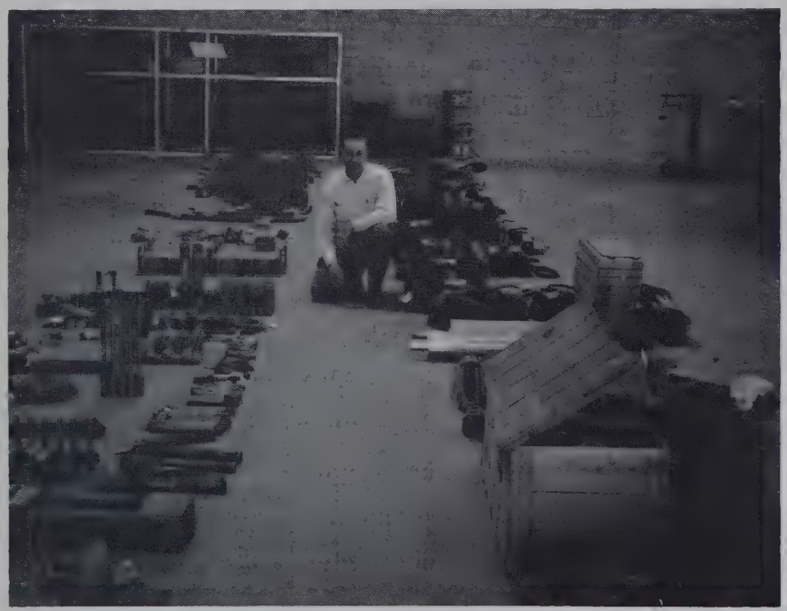
At this point, District Engineer J. C. Roberts decided it was an ideal time to reduce or dispose of obsolete stock items. First, he visited the Austin Office and discussed with D-4, D-11, and D-18 ways and means of (1) reducing and disposing of surplus and obsolete items; (2) improving inventory stock levels; and (3) increasing stock turnover.

Returning to Abilene, his Assistant Fiscal Officer, Equipment Supervisor, and Warehouse Superintendent conferred and mapped out a workable program. The section warehouse stocks were inventoried; a maximum-efficiency stock level was determined, and the foremen were given permission to transfer to the District Warehouse all surplus and obsolete warehouse stock items. Careful screening of District Warehouse Stock determined its surplus and obsolescence. These items were removed from their respective bins, combined with surplus and

up time

obsolete items transferred from the section warehouse, and placed in two uniform rows on the new District Warehouse floors. One row represented the obsolete parts for which we had no equipment and could not use; the other represented surplus and obsolete items that might be used in some manner by slight modification.

To further complete this picture, a general policing of the warehouse yards was instigated to create a more attractive appearance to the general public, a more desirable place in which to work, and to establish a more uniform system of accountability. This was accomplished by moving every individual item in the yard and separating them into three categories: (1) no-good junk; (2) junk with some salvage value; and (3) current stock items. Permission was granted to move the no-good junk and the junk that might have salvage value to the District Shop where an area had been assigned each county to unload these two categories. The Equipment Supervisor, in turn, salvaged all usable material from these two locations, and the remainder was sold in one glorified junk sale. The section-warehouse yards went through a complete rearranging program in



W. A. Beasley, Warehouse Superintendent, poses with surplus items. At right are obsolete items, and at left are surplus items which could be used with possible modifications.

In the new district warehouse bins are set up and indexed, with inventory at the old warehouse catalogued to fall into place.

This district junk pile holds material brought in from counties, some of which is no good and some of which has salvage value.

regard to cleanup and level up. Material stockpiles were made uniform in prescribed dimensions, constituting a quantity of six cubic yards of material per lineal foot. This was made possible by stacking all roadway material

Current stock items are placed on material racks in the warehouse yard.

such as aggregate, premix, rock dust, and sand in a uniform pile 36 feet wide at the base with a nine-foot slope at a height of six feet. An accurate quantity balance could be determined quickly with the use of a tape measure for both construction and accounting purposes. A uniform plot was furnished each foreman for location and arrangement of field items. With the concentration of junk, obsolete, and surplus parts in the District warehouse and designated shop area, a picture was formed as to

Areas for material stockpiles are marked off for uniformity.

From this side, material is loaded onto trucks for use.

WAREHOUSE STOCK TURNOVER

Fiscal Year Ending August 31, 1961

District	Inventory 8-31-60	Inventory 8-31-61	Total	Average Inventory	Stock Disbursement	Turnover on Investment
1	$ 484,864.17	$ 501,769.20	$ 986,633.37	$ 493,316.69	$ 1,582,538.90	3.21%
2	398,806.36	427,918.32	826,724.68	413,362.34	1,398,643.26	3.38
3	299,206.50	323,377.91	622,584.41	311,292.20	753,097.01	2.42
4	707,013.63	550,114.16	1,257,127.79	628,563.90	1,097,909.71	1.75
5	467,278.72	460,072.31	927,351.03	463,675.51	1,189,564.72	2.57
6	357,129.11	420,965.11	778,094.22	389,047.11	773,561.13	1.99
7	329,049.27	302,110.95	631,160.22	315,580.11	735,575.41	2.33
8	278,370.63	203,058.73	481,429.36	240,714.68	1,028,211.68	4.27
9	571,725.64	646,075.99	1,217,801.63	608,900.81	1,160,059.46	1.91
10	459,109.96	421,235.56	880,345.52	440,172.76	1,099,867.96	2.50
11	407,137.45	496,271.84	903,409.29	451,704.65	774,913.45	1.72
12	952,605.30	952,413.17	1,905,018.47	952,509.23	2,067,820.44	2.17
13	513,990.03	559,686.67	1,073,676.70	536,838.35	1,322,232.76	2.46
14	451,901.97	459,101.82	911,003.79	455,501.90	1,033,071.95	2.27
15	437,699.93	498,113.92	935,813.85	467,906.92	1,351,126.53	2.89
16	428,677.30	314,010.97	742,688.27	371,344.14	821,722.60	2.21
17	283,411.06	273,907.61	557,318.67	278,659.34	832,461.67	2.99
18	455,494.04	573,984.46	1,029,478.50	514,739.25	2,046,631.78	3.98
19	238,214.08	318,550.57	556,764.65	278,382.32	656,336.71	2.36
20	801,450.72	626,426.52	1,427,877.24	713,938.62	1,302,239.16	1.82
21	320,995.34	329,409.19	650,404.53	325,202.26	793,320.83	2.44
22	231,238.41	226,344.10	457,582.51	228,791.26	369,382.88	1.61
23	194,654.96	203,154.23	397,809.19	198,904.60	659,421.64	3.32
24	273,441.15	333,439.37	606,880.52	303,440.26	377,010.76	1.24
25	281,811.61	300,454.06	582,265.67	291,132.83	804,541.35	2.76
	$10,625,277.34	$10,721,966.74	$21,347,244.08	$10,673,622.04	$26,031.263.75	2.44
Camp Hubbard	1,615,683.76	1,700,205.48	3,315,889.24	1,657,944.62	3,502,916.58	2.11
	$12,240,961.10	$12,422,172.22	$24,663,133.32	$12,331,566.66	$29,534,180.33	2.40

Average Inventory per District	$ 426,944.88
Average Inventory including Camp Hubbard	474,291.03

what the leftovers may be.

The monetary value established on these items from the individual stock cards amounted to only a fraction of one per cent of the business transacted during the past five years.

With D-4's assistance, some of the surplus and obsolete stock items were traded in on the purchase of later models from local firms, and some of the items were sold to Districts. The slight amount remaining will be sold on a bid basis by the State Board of Control.

So Abilene started the first year in its new District Warehouse with practically a clean slate. Its newly established warehouse inventory levels for both District and Section Warehouse stock accounts began to pay off. Its September 1, 1961, inventory was reduced by $75,000 from that of September 1960 in spite of an increase in total volume of approximately $300,000 for the year.

By the end of the 1961 fiscal year it led the state with a stock-turnover figure of 4.27, which is 1.83 higher than the state average. So what at first appeared to be a problem was converted into a solution for better operating efficiency. Monies normally tied up in inventory were released for use elsewhere in construction and maintenance of highways and needed personnel.

CORALLED with CAR BODIES

Henry L. Gallegly, Senior Resident Engineer
District 4

During the rainy season of 1961 there was some flood damage to highways and bridges in this area. The Canadian River Bridge, located on U. S. 385 at Boys Ranch, was one of the bridges damaged during the flooding period. The bridge was left intact, primarily because of the fine effort put forth by our maintenance crews, but the north approach was damaged. More alarming was the fact that the river bed had shifted northerly and the north fill was in danger at all times from any small rise in the river.

After preliminary engineering work and study of aerial photographs of the area before flooding, it was recommended that the bridge be extended with another 325-foot continuous I-beam unit on the north end, and that extensive river-bank protection be designed to protect against possible change in the stream bed, thus furnishing a permanent solution to this erosion problem.

Included in the original construction of the bridge were 135 steel jet-

This picture, taken from the bridge looking west (upstream) along the main dike, shows the car bodies in place before earth is filled in.

ties of the J-3 type which had been installed on the north river bank and extended upstream for about 1,200 feet. Also, additional jetties of similar type were installed by the maintenance forces later. During this flooding, these jetties seemed to disappear and did very little in helping divert the onrushing water. It was suggested that some form of barrier-type protection be designed to divert the onrushing water. Our first thought was to construct a dirt dike and riprap the front slope with concrete, rock, or other material, but then we were stumped on how we were going to hold this up in 105 feet of water-bearing sand.

The maintenance department had used old car bodies in saving the north approach during this flood so our thoughts then turned to using car bodies as riprap on the front slopes of this dike.

The design decided upon consisted of installation of a line of car bodies along the previously constructed dike

Another view with car bodies in place on main dike section. Wing dike can be seen in left center of picture.

From the south bank of the river, the car bodies are seen in place on the main dike and wing dike.

A completed section of the main dike and the wing dike after car bodies were filled with earth is shown here, as seen from the top of the main dike looking downstream toward the bridge.

Completed section looking upstream (west) along the main dike.

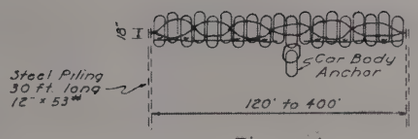


Figure 1

River Bank Protection to be of car bodies placed side by side and anchored with cables tied to piling. Piling to be spaced as shown with car body anchor in between.

Figure 2

Section Wing Dyke

Section Main Dyke

Piling Anchor Detail

Figure 3

as shown in Figure 3, and the main dike and the wing dike sections as shown in Figure 2. These dikes were constructed from dirt excavated from the north fill in preparing for the extension. After the stream bank and dikes were so shaped, the steel H piling shown for anchors was driven at the locations and to the elevations indicated on the plans.

A car body was then buried at about one-half the distance between the steel H piling. It was placed so that the highest part of the car body was at least one foot below stream bed.

A trench was then cut in the stream bed along the toe of slopes of the dikes. This trench was cut to a depth of twelve inches below the stream bed. The car bodies were then placed along the dike slope as indicated in Figures 1 and 3 and as close together as possible. The bodies were placed with the bottom of the body on a 45-degree slope with the back end resting in the previously prepared trench. Two lines of three-fourths-inch cables were attached to the piling and laced through the car bodies and extended to the next piling where they were securely attached. The cables were wrapped around the piling twice and fastened with two clips on each cable. The two cables were fastened together with two clips at intervals of approximately 40 feet. A cable was also attached to the buried car body and to the two lines of cable that had been laced through the car bodies. All the cars in the installation were then filled with earth material to the extent that this operation was practical.

This item was described as "River Bank Protection" and measured by the linear foot—measurement being made between the centers of piling at the end of each line constructed. Steel H piling was measured and paid for under Item 419, Steel H Piling.

The contractor for this project was Ferrier Bros. of Seymour, Texas, who submitted a bid for "River Bank Protection," Item, of $3.05 per linear foot. They purchased the old car bodies for about $2 each from junk dealers in Dalhart and Amarillo and did their own hauling. There were 580 old car bodies installed in the river-bank protection item.

The contract was completed in early June of this year and as yet it has not been tested by the river. But if the old Canadian River lives up to its reputation, it will be severely tested in years to come.

ONE-WAY HIGHWAYS?

Wichita Falls Times, by editorial—"The suggestion has been made that one-way street systems in effect in cities be extended to highway systems to move more traffic safely.

"An official of one of the major automobile manufacturers came up with the idea, and it has provoked comment.

"While head-on crashes would be reduced, other categories of traffic accidents would not necessarily be affected. A growing percentage of traffic miscues is the result of accidents in which only one vehicle is involved.

"The idea could be practical on some roads in some areas that have an excellent system of alternate thoroughfares. Its application to roads generally, however, would raise serious doubts about feasibility."

SOUND INVESTMENT

Dallas Morning News, in its Weather Vane column—"State Highway Engineer Dewitt C. Greer figures that spending money to rebuild highways to safer engineering standards is a sound investment in saving lives. He said a special year-before and year-after study of accidents on 1,489 miles of highways reconstructed to improve safety designs showed a drop in the death rate from 8.3 to 4.2 fatalities for each 100 million vehicle miles of travel."

BROWNSVILLE APPROACH

Brownsville Herald, on roadway beautification—"International Boulevard and the approaches to Brownsville on Highway 77 are getting a 'new look' with a landscaping and beautification project by the Texas Highway Department.

"Cooperating with City Park Superintendent Pat Moore, highway crews are planting ornamental shrubs and palms on International Boulevard islands at Filmore Street and near the intersection of Fourteenth Street. Also being planted are jacarandas, poincianas and bougainvillea.

"The work is under the supervision of Engineer John Coston and under the direction of District Engineer Jim Snyder of Pharr."

A COUNTY FIRST

Denver City Press—"The county's first roadside park, scheduled to be installed three miles north of Denver City on Highway 214 came a step nearer realization Monday night when the city council voted to deed the necessary property to the Texas Highway Department.

"The park will be located on the west side of the highway, on a portion of city-owned property. It will include approximately an acre and a third of ground.

"According to word from O. L. Crain of the Texas Highway Department, work on the park will get underway as soon as the deed to the property is received."

UNDER THE HIGHWAY

Dublin Progress, in an article on an old well discovered beneath a highway—"L. E. Jones, Stephenville, Texas Highway Department maintenance man, discovered a small hole, approximately three inches in diameter, Monday, two miles northwest of Dublin, on the Bunyan highway.

"Jones, upon examination, found that there was a cavity of unknown size and depth, and quickly placed a call to the department in Stephenville. The discovery was made at approximately 2:15 p.m. and within a couple of hours the danger was erased.

"Jones and O. E. Riggs, assistant maintenance foreman, discovered that the large cavity was an old hand dug well which had been filled, and lay undiscovered until now.

"Derrick [Joe, maintenance foreman] stated that the help of the two radio units of the Erath THD were responsible for the quick action. Within ten minutes after the hole was discovered, necessary equipment and personnel were making their way to the area.

"Quick thinking and quick action on the part of Jones and other highway personnel perhaps prevented a serious accident, even death, to some traveler on the Bunyan FM road."

EDITORIAL PAT

El Paso Times, in W. J. Hooten's column—"It's always nice to pass along a pat on the back. Here's one in the form of an editorial which appeared in the Carlsbad Current-Argus:

" 'We salute the Texas Highway Department for the work it is doing on the 15-mile stretch of road from the New Mexico state line to Pine Springs on U. S. 180-62.

" 'Although the job isn't complete, we know from past experience that it will be up to the usual high standards of the Texas Highway Department'."

KTBC Radio Station, Austin—"There was a time in this state when roads were blamed for some accidents . . . that curve was just too sharp, the bridge was too narrow and so on. For the most part that cannot be said anymore; engineers have solved most of these problems . . ."

MILES AND MILES

San Antonio Light, in an editorial by Tom McGowan—"An unsung humorist once said Texas consists of miles and miles of miles and miles.

"If he was talking about Texas' highway system he was so right.

"Texas' highways, if laid end-to-end would circle the earth twice at the equator. There would be 12,000 miles left over with nowhere to go.

"State highway department officials insist that this startling statistic reflects more than the state's geographic size.

"It reflects, they say, the unique dependence of the Texas economy on highway transport.

"Highway officials say 1,800 communities in the state depend solely on roads for transportation, having no rail or air connections."

PAN-AM WAY

Valley Morning Star (Harlingen) on the Pan American Highway—"Strong inter-American support has been mobilized for an early start on the final survey of the 435-mile Darien sector of the Pan American Highway. But the 'go ahead' still awaits U. S. decisions on timing and financing."

U. S. 75

Sherman Democrat, in an article on the Sherman freeway—"State Highway Engineer D. C. Greer reported Saturday the big construction job on US 75 in Sherman north of Houston Street to the MKT Railroad has reached nearly three-fourths of the completion with an estimated $780,908 used against the $1,128,074 contract."

Madisonville Meteor—"Another segment of Highway 75—actually it is now Interstate 45—was opened to travel November 1 in a ribbon-cutting ceremony on the Walker-Montgomery County line.

"The section extends from the New Waverly area into Montgomery County about three miles where traffic is again diverted to old Highway 75, south to below Conroe."

Denison Herald, on Highway 75—"A $1,592,252 contract was let Wednesday by the State Highway Commission for another major section of the new Highway 75 expressway across Grayson County.

"The new section will start at the end of the newly completed expressway near the Capitol Products plant just south of Sherman."

Sherman Democrat, on U. S. 75 lighting—"Sherman motorists using US 75 to go to Dallas will soon have the benefit of highway lighting on three important stretches of roadway as the new illumination systems are completed and turned on.

"State Highway Engineer D. C. Greer has reported that one of the jobs by Big State Construction Co. from the Dallas County line north to two-tenths of a mile north of FM 544 is rated 100 per cent complete. He said the project in Dallas from two-tenths of a mile north of Loop 12 north to the city limits is rated 82 per cent complete, and the one from Dallas north city limits to the Collin County line is 91 per cent complete!"

ICE PLANS

San Antonio Express, on ice plans—"Closing of San Antonio's expressway system during icing will be a thing of the past under a plan worked out Thursday in a meeting between Acting City Manager Jack Shelly, police, highway department and public works officials.

"Shelly said the emergency icing procedure will attempt to keep as much of the expressway system open as possible, and to keep frontage roads open where the expressway has to be closed.

"Under the plan the highway department, police and public works department would coordinate work to place sand and chaff on the system at the Commerce and Buena Vista overpasses and to erect barricades."

SOUTHWEST FREEWAY

Herald-Coaster (Rosenberg) covering freeway opening ceremonies—"Another phase of Southwest Freeway completion—the opening of the service roads for a 10-mile stretch between Sugar Land and Bellaire Boulevard in Sharpstown—was marked by a ceremony sponsored by the Sugar Land City Council.

"Construction cost of the two 24-foot concrete service roads for the Sugar Land-Sharpstown section was some $3,980,000.

" 'The whole Southwest Freeway construction program has been sparked by this particular section,' Mayor Little pointed out. 'It was moved out of the talking stage by an unprecedented right-of-way donation from Fort Bend and Harris County property owners, by the Highway Department's work, and by the cooperation of public agencies and civic leaders in both Harris and Fort Bend Counties'."

FM PLANS

Dublin Progress, on the FM program—"The Texas Highway Commission today approved the expenditure of $15 million for additional safety features to improve Farm to Market Roads.

"The 1962 Farm to Market Road Improvement Program will affect 2,943 miles of FM Roads in 182 counties. Types of safety work to be done include: reconstruction; widening, reconditioning, and resurfacing; additional surfacing; application of seal coat; work on shoulders and sodding; work on drainage structures and approaches."

FORECAST FOR '62

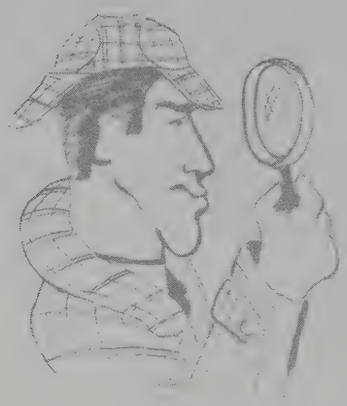
Waco Tribune-Herald, on the Texas road system—"As in years past, 1962 will find Texas' highways needs expanding so fast the state will not be able to keep up with them, State Highway Engineer D. C. Greer said.

"Greer said during 1961 Texas added 1,277 miles of new roads to all highway systems, completing some 3,000 separate projects at a cost of $230 million.

"The work kept Texas highways among the best in the nation, Greer said, but more roads are still needed.

"He said the highway department will maintain about the same level of activity in 1962."

THE CASE OF THE



MISSING COLUMN

Bridge Repair in Bosque County

E. Lent Hardeman, Senior Bridge Engineer
District 9

On the night of October 11, 1961, heavy rains in Bosque County flooded Hog Creek. Heavy drift carried by the flood broke the upstream column of one of the interior bents in the bridge on F. M. 217. Remarkably, the spans did not collapse although several vehicles passed over the damaged bridge. The one-legged bent was not discovered until the next day after the water level had receded.

This bridge, built in 1958, is made up of four 30-foot pan girder spans (CGC-15, 23-foot 4½-inch roadway) on 18-inch column and drilled shaft bents. Column reinforcing steel consists of six number 5 bars with number 2 spiral.

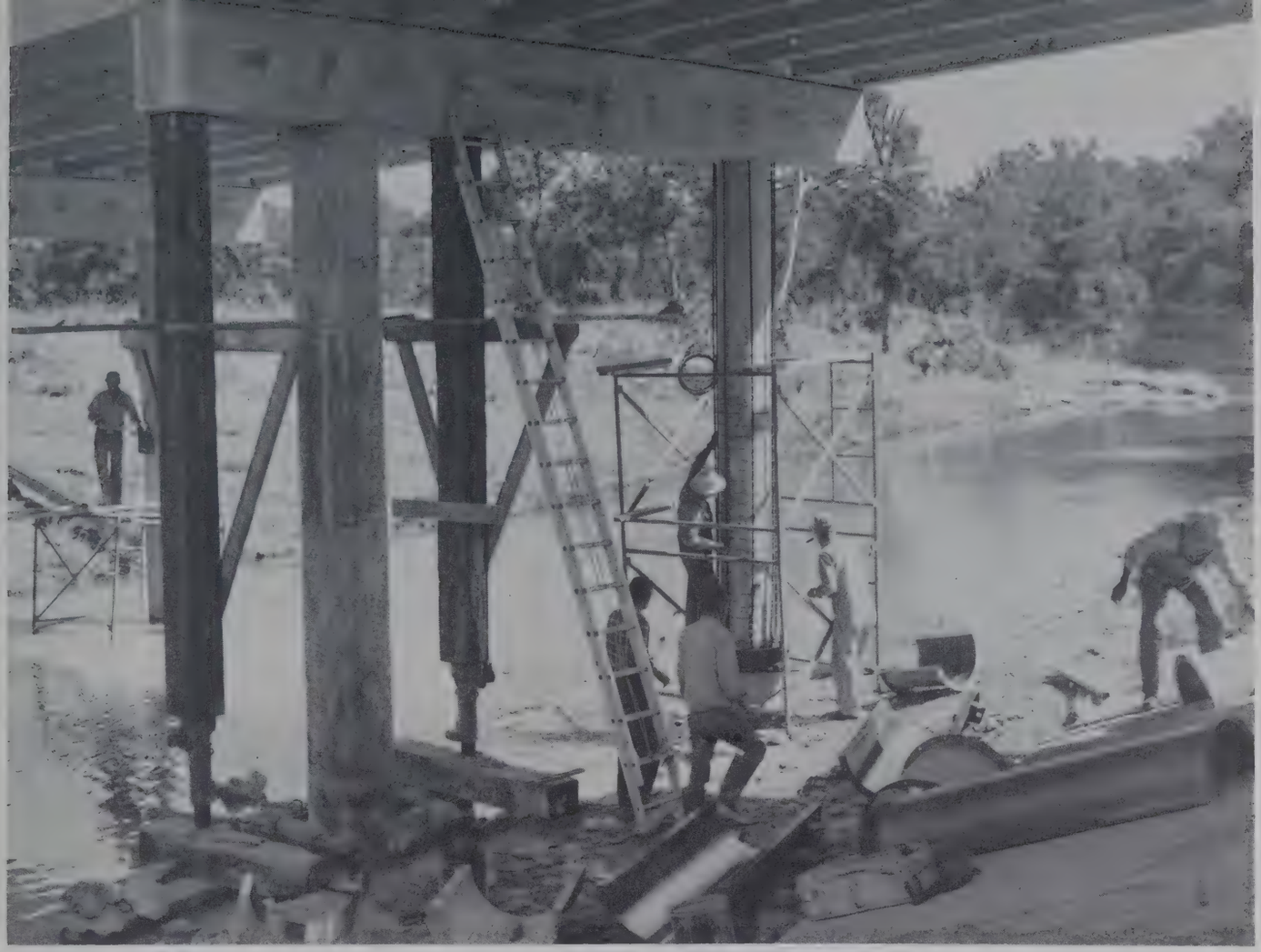
On October 13, the bridge crew—under the direction of Otha Jones, Construction Superintendent—went to work, and within a few hours the cap had been jacked up approximately one and one-half inches. A salvaged steel H-section from an old truss bridge was placed where the old column had been, and the bridge was opened to traffic.

Later, both the H section and the eighteen-inch downstream column which had been badly cracked were encased in 24-inch concrete columns. Seven-inch-diameter holes were made in the bridge deck to facilitate concrete placement.

The adjacent interior bent suffered no appreciable damage; however, the columns were thin and appeared to be equally vulnerable to drift damage. Another salvage H section was installed as a strut between the columns to stiffen this bent. Channels shaped to fit the eighteen-inch columns were bolted to the columns with three-fourths-inch bolts in drilled sleeves. The strut was then welded in place and a nonshrinking grout was packed between the channels and the columns.

Within a week the repair work was completed, leaving a much sturdier bridge to resist possible future flood damage.

Several vehicles passed over this bridge before the water receded and the missing column was discovered.



A salvaged steel H-section from an old truss bridge replaced the broken column. This section and the downstream column were encased in 24-inch concrete columns.

Another steel H-section was placed as a strut between the columns of the adjacent interior bent.

District 19

Former Oklahoma Governor Raymond Gary and Texas District Engineer Gilbert A Youngs hold ribbon. Oklahoma Bridge Engineer D. I. McCullough and his granddaughter look on as Mrs. McCullough cuts the ribbon.

Bridge Dedication

DEPARTMENT OF HIGHWAYS
STATE OF OKLAHOMA
AS AN EXPRESSION OF THE
APPRECIATION OF THE PEOPLE
OF THE STATE OF OKLAHOMA
FOR A LIFE OF DEDICATION
TO THE PUBLIC SERVICE
AND APPROVED BY THE STATE
HIGHWAY COMMISSION

After two of the wettest years in the history of the area—and very frustrating ones for Duard Pyle, the Contractor—another bridge across the Red River linking the states of Texas and Oklahoma has been completed.

Although surfacing of the roads had not been completed in either state at the time, the bridge was officially dedicated and opened to traffic in a ribbon-cutting ceremony on October 21, 1961. It was a gala affair not marred by the appearance of Oklahoma National Guardsmen on one side and Texas Rangers on the other, as was the opening of a bridge between those two states a generation ago.

This bridge is on Texas State 26 and Oklahoma State 103 between Harris, Oklahoma, and DeKalb, Texas. It opens up wide areas in both states which were once connected by only a crude ferry periodically operated some five miles to the east of the present bridge. The bridge was constructed at a cost of $616,300 and financed by the two states and the Federal government. It was designed

Photographs courtesy of Oklahoma Department of Highways

A monument dedicates the bridge, named in honor of D. I. McCullough, Oklahoma Bridge Engineer.

and its construction supervised by Oklahoma. Normal maintenance will be done under the supervision of District 19, Texas Highway Department.

At the dedication ceremony arranged by Virgil Jumper of Idabel, Oklahoma, and W. B. Russell of DeKalb, Texas, the principal speaker was former Oklahoma Governor Raymond Gary. The bridge was named the D. I. McCULLOUGH BRIDGE in honor of the Oklahoma Bridge Engineer who designed it.

Representing the Texas Bridge Division was E. A. Jelinek, Bridge Administrative Engineer, of Austin. Representing Governor Daniel of Texas and the Texas Highway Commission was District Engineer Gilbert Youngs of Atlanta. He expressed the regrets of the Governor and Highway Commission at not being able to attend and extended to the group greetings from Texas.

District Engineer Gilbert A. Youngs extends greetings from Texas.

This bridge between Texas and Oklahoma gives access to areas formerly linked only by periodic ferryboat operations.

the brave duck

Along Texas Highways

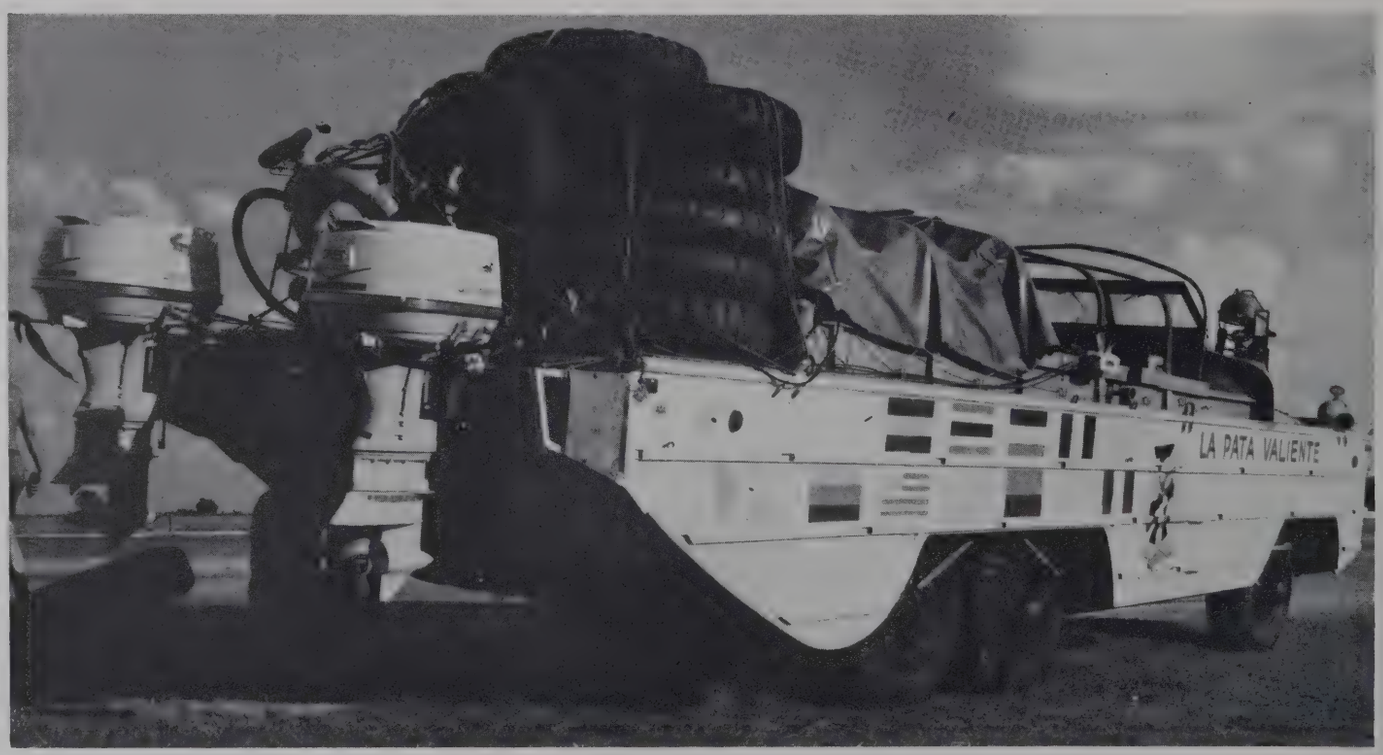
La Pata Valiente (The Brave Duck) is on its way to South America on a good-will tour, driven by six students from Drew, Cobleskill, Middlebury, and Albany State colleges in New Jersey and New York. Along with clothing and bedding, the boys have a German shepherd dog, a bicycle, and as many army surplus tires as they were able to tie on the back.

Two of The Brave Duck's tires blew out on I. H. 35 near New Braunfels and the boys were held up for hours in making the necessary repairs because they didn't have equipment required to raise the heavy duck.

Spokesman for the group said they will travel by road as far as the Panama Canal where they figure the road runs out. There they will take to water for several hundred miles. They hope to be back in time for the fall semester of 1962.

Since army surplus tires are all the boys could find to fit the amphibious craft, they are plagued with blowouts because the rubber has deteriorated badly.

The craft is light blue with the flags of the South American countries painted on its sides.



OVER THE HIGHWAYS

Comments . . . from the Traveling Public

• . . . I am impelled to write you a highly complimentary letter regarding your Texas Highway System. It's truly outstanding!

. . . If you travel through your state by car, you surely feel a glow of great pride as you observe the excellence of your highways. We were struck with the great amount of time, thought, and energy which has been expended to create such noteworthy results. Your highway signs are very fine—so clear, so easily read from a distance, and always strategically placed. As a garden club member, naturally I noticed your attractive, very tidy, and interestingly landscaped Texas highway buildings.

Elbert and Dona Burgett
Flagstaff, Arizona

• I have been with the Post Office Department at the above office [Mobeetie] for over 27 years, thirteen as Postmaster and the last fourteen as a Rural Carrier.

Your Mr. Curtis Tidwell stationed at Wheeler, Texas, has recently finished fixing the turnouts not only for mail boxes but also for side roads and private roads coming on the highway with material that will stay and take the wear. They are now in the best shape they have been in during the 27 years I have had occasion to notice them particularly. I believe Mr. Tidwell is in Mr. Palmer Massey's district out of Childress, Texas.

I wanted you to know that I appreciate these gentlemen's work.

Grady W. Harris
Mobeetie, Texas

◆ *Curtis L. Kidwell is Maintenance Construction Foreman in Wheeler.*

• On behalf of Headquarters, Fourth United States Army, I wish to thank you for being on the receiving list of your excellent monthly Road Condition Bulletin. The bulletin was particularly valuable to us during Hurricane Carla when this headquarters assisted civilian authorities in disaster relief. It is also useful in keeping our Disaster Aid Plans up to date.

Please accept our compliments on a first rate, useful publication.

William J. Blythe, Colonel
Office of the AC of S, G-2
Fort Sam Houston, Texas

• We are writing to compliment you on your fine system of Roadside Parks throughout your wide and wonderful state. During the past week we came through Texas and had the pleasure of camping in such areas. They are truly beautiful and are all kept in perfect condition. One night we stayed in a State Park, also excellent.

We have traveled extensively throughout the United States and in no state have we found anything comparable to your Roadside Parks.

Thank you and your fellow Texans for the privilege of riding on your superb highways and availing ourselves of your State Parks and Roadside Parks.

Mr. and Mrs. C. C. Irish
Orting, Washington

• While on vacation we were privileged to visit San Antonio, Texas, and other parts of your state. After traveling through many states on our vacation, we felt moved to congratulate you on the way your highways and roadsides are kept. We also enjoyed many of your roadside parks, as we do much cooking on our trips. Only one thing lacked. We had three children along and missed rest rooms in your parks.

Bernard Schaefer and family
Kokomo, Indiana

• Texas has excellent highways and the roadside parks are the best of any state we have traveled through. The Highway Travel office was very friendly and helpful.

Lompoc, California

• I think the Highway System is one of the best in U. S. and the courteous attention of city and state employees is to be highly commended. The up-to-date information is very helpful.

Laredo, Texas

• Good highways, reasonable gas prices, very good state information service. Good traffic laws, no water in roadside parks.

Santa Clara, California

To and From Our Readers

The following letter, symbolizing hundreds of letters written to the Department over the years, is written about M. B. Patterson, Skilled Laborer in District 14. The name of almost any of our maintenance men could be substituted, with an incident of almost equal valor, politeness, or service involved.

I feel compelled to write you this letter which is almost self-explanatory.

On Friday, December 8, 1961, late in the evening, I was driving my car, accompanied by my wife, to Austin. If you recall, the weather was extremely bad—foggy, drizzling, raining and cold. Between Georgetown and Austin my car stopped without any warning. In this desperate position, far from help, suddenly a car with a Highway Department mark stopped and offered to render help. In this car was Mr. M. B. Patterson from 4413 Avenue C in Austin with a friend whose name I do not remember. They tried hard to start my car . . . when this was not possible . . . together they brought it to Austin.

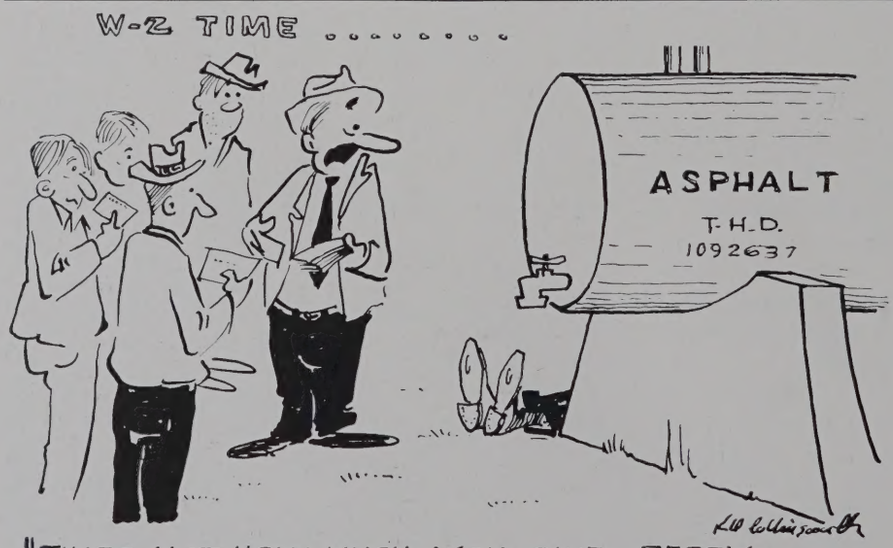
The reason for my going to Austin was that my son . . . a freshman at the University . . . was quite ill. Mr. Patterson, seeing the desperate position we were in, offered and actually took his private car to drive us to the Dormitory and then took us back to Temple. The weather was terrible that night. In these conditions, he brought us to Temple and then left to go back home the same night. When we were at his house he offered us coffee and refreshments.

Thanks to Mr. Patterson, I was able to render my son proper care who was very dangerously ill and shortly after reaching home developed signs of lockjaw which were only transient.

The reason for my writing this letter is to let you know how proud I feel you should be of having a man like Mr. Patterson working for you. It is almost an unbelievable story, but it is a true one, and thanks to your employee we were able to bring our very sick son home. To make it even more important, Mr. Patterson definitely refused to take any compensation for his trouble.

My family and I are deeply grateful to Mr. Patterson and wanted you to know of his most generous and unselfish service to us.

I. Epstein, M.D.
Temple, Texas



"THATS NOT HOW MUCH YOU OWE, FEZBY,.... ITS YOUR SOCIAL SECURITY NUMBER!"

About Our Pictures . . .

The four-lane divided highway pictured on the cover this month is U. S. 180-62, through the Guadalupe Mountains. The cover scene was made near Pine Springs, on the western rim of Texas.

Inside the front cover is another scene of the West-Texas area. Pictured is the roadside park on U. S. 180-62 at Guadalupe Peak, in the background.

This bridge out of the past still stands on the old route of S. H. 147 between Broaddus and Zavala. This area will be inundated by McGee Bend Reservoir.

TEXAS HIGHWAY COMMISSION

HERBERT C. PETRY JR.	**Chairman**
CHARLES F. HAWN	**Member**
HAL WOODWARD	**Member**
D. C. GREER	**State Highway Engineer**

Texas Highways

TEXAS HIGHWAYS, official journal of the Texas Highway Department, is published in the interest of highway development in Texas and for departmental education in the improvement of construction, maintenance, and operation.

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